

Testimony of

Joel M. Rinebold

Director of Energy Initiatives

Connecticut Center for Advanced Technology, Inc.

before

Energy and Technology Committee

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regarding

Raised Bill No. 457

An Act Concerning Energy Independence Districts

## **Introduction**

The Connecticut Center for Advanced Technology, Inc. ("CCAT"), offers this testimony in strong support of Raised Bill 457 - An Act Concerning Energy Independence Districts.

CCAT is a non-stock, tax-exempt Connecticut corporation that works in partnership with industry, government, and academia to strengthen technology-led economic competitiveness. The Energy Initiative of CCAT has been established to improve the economic competitiveness of the region through solutions that lower energy costs and increase long-term energy reliability. CCAT undertakes energy planning, and promotes renewable energy, including advanced technologies and sustainable fuels.

The development of one or more Energy Independence Districts (EID) within a micro-grid system is supported by CCAT to provide a more favorable economy of scale, and balance for the distribution and the combined generation of electricity and thermal energy. The on-site production of electricity and thermal energy will increase efficiency and reduce costs including those customer costs and those costs associated with federally mandated congestion charges that are assessed on the grid system; increase reliability within the potential EIDs and the communities by taking the load off the grid system; and improve environment performance including the reduction of greenhouse gas emissions throughout the region. To the extent that the technologies employed to generate the energy are developed and manufactured in the State, other benefits would be realized such as enhancement of economic development and employment.

The establishment of one or more EIDs within a municipality provides a structure for the logical deployment at appropriate sites with municipal involvement and financing to create and install a micro-grid and power system within specific designated areas of a municipality. The micro-grid will generally consist of a combined heat and power (CHP) generation facility, thermal connections to move hot and chilled water to heat and cool buildings, and electrical connections to provide electricity to users within the EID.

Ancillary equipment includes safety and protection gear, air pollution control devices, fuel supply/storage infrastructure, heat exchangers, chillers, and regulating gear including

thermal valves and electric transformers. The EID approach recognizes the need for high reliability, synergistic production of heat and power, the potential use of advanced technologies, and renewable resources to reduce energy costs and improve environmental performance, through the involvement of local municipalities to solve energy problems. Encouraging adjoining municipalities to combine their energy improvement districts into one regional district with one board will improve the efficiency of the process and provide regional solutions to regional energy problems.

### **Conclusion**

As one of the early developers of this concept, the Connecticut Center for Advanced Technology, Inc. is pleased to support this Bill and is available to provide technical expertise to assist municipalities and municipal boards with the development of comprehensive plans for EIDs and to make the best use of investment in advanced technology for distributed generation, reduce air pollutant emissions, reduce municipal electricity costs, and improve energy reliability and security. CCAT reaffirms its commitment to work with municipalities and electric utilities to develop the concept for the benefit of Connecticut consumers.

CCAT will make itself available to the Committee and legislature upon request to assist in the refinement of this legislation to include the development of comprehensive plans to maximize both technical effectiveness and economic efficiency.

Respectfully submitted,

CONNECTICUT CENTER FOR ADVANCED TECHNOLOGY, INC.

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Joel M. Rinebold  
Director of Energy Initiatives